

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-NH-003-1(33) Fulton
P.I. No.: 720570
U.S. 78/278/DL Hollowell Parkway

OFFICE: Engineering Services

DATE: January 11, 2008

FROM: Brian K. Summers, PE, Project Review Engineer *RLW*

TO: Ben Buchan, P.E., State Urban Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/LCC	Implement	Comments
ALIGNMENT (AL)				
AL-2	Shift the left-turn lane at STA. 122+00 further to the west in line with the metals fabricating plant driveway.	\$3,214	No	This would negatively affect the left turn storage length from D.L. Hollowell Parkway onto Marietta Boulevard.
AL-3	Eliminate both bike lanes along D.L. Hollowell Parkway.	\$545,736	No	This route is on the ARC Bike Transportation and Pedestrian Walkways Plan. In addition, the extra width for the Bike Lanes will aid in Stage Construction.
AL-5	Eliminate the sidewalk on the north side of the Stiff Street access road.	\$27,108 (proposed) \$9,720 (actual)	Yes	This will eliminate approximately 270 SY of Concrete Sidewalk.

ALT #	Description	Potential Savings/LCC	Implement	Comments
ALIGNMENT (AL) - continued				
AL-7	Continue Glass Street further west to Marietta Boulevard to improve circulation.	-\$57,472 (cost increase)	Yes	This will be done to improve circulation.
AL-8	Eliminate the sidewalks on the Glass Street Connector.	\$12,156 (proposed) \$414 (actual)	Yes	Sidewalk will be eliminated along the north side of Glass Street but will be added along the east side of Marietta Boulevard to tie to the new Glass/Law Street Extension.
AL-10	Shorten the project limits on the east end of the alignment to somewhere between STA. 129+50 to STA. 131+00.	\$21,601 (original) \$4,315 (revised)	Yes	This should be done. The revised Project Limits will be Sta. 130+28+.
AL-11	Modify the storm design to use a drain line on just one side of the street in lieu of both, where possible.	\$7,457	Yes	This should be done.
AL-12	Review the storm drain plan and profile for accuracy and constructability.	Design Suggestion	Yes	This should be done.
AL-13	Do not demolish the existing pavement on the south side of D.L. Hollowell Parkway just west and east of the CSX bridge. Use this existing pavement for Maddox Park parking.	Design Suggestion	No	This area could not be used for parking without extensive modifications to the existing parking lot by the City of Atlanta.

ALT #	Description	Potential Savings/LCC	Implement	Comments
PROFILE (P)				
P-2	Raise the profile of the mainline by 1 ft. under the CSX detour bridge to reduce excavation quantity and bridge length, reducing the vertical clearance from 18 ft. to the required minimum of 17 ft.	\$80,064	No	Would require a redesign of both the roadway bridge and the railroad bridge.
CSX BRIDGE (CX)				
CX-1	Build the temporary railroad detour bridge as permanent and have CSX participate in the funding.	\$1,673,622	No	CSX Railroad has approved the current Bridge and Detour Bridge Layout. They are proposing an additional parallel track at some point in the future.
CX-2	Use a two-span permanent railroad bridge with a column in the roadway median in lieu of a three-span bridge.	\$204,226	No	There are safety concerns since this would introduce a Bent Column in the middle of the roadway.
ABANDONED RAILROAD R/W BRIDGE				
AB-1	Use a Con/Span® arched type of structure in lieu of a conventional bridge over the abandoned railroad right-of-way.	\$930,416	No	CSX Railroad owns the abandoned railroad line and has approved the current Bridge Layout. They are proposing two separate parallel tracks in this corridor and the use of a Con/Span® arched type structure would not provide the adequate vertical clearance.

ALT #	Description	Potential Savings/LCC	Implement	Comments
ABANDONED RAILROAD R/W BRIDGE - continued				
AB-2	Use two bridge structures over the abandoned railroad right-of-way in lieu of a single wider bridge.	\$122,188	No	CSX Railroad owns the abandoned railroad line and has approved the current Bridge Layout. This would require safety barrier on both ends of both bridges.

A meeting was held on January 7, 2008 and Neal O'Brien and Keith Collins with Urban Design, and Brian Summers, Ron Wishon and Lisa Myers of Engineering Services were in attendance.

Additional information was provided on January 11, 2008.

The results above reflect the consensus of those in attendance and those who provided input.

Approved:  Date: 1/18/08
 Gerald M. Ross, P. E., Chief Engineer

BKS/REW

Attachments

c: Gus Shanine, FHWA
 Todd Long
 Chuck Hasty
 Neal O'Brien
 Jill Franks
 Keith Collins
 Bill Duval
 Jack Muirhead
 James Magnus
 Mickey McGee
 Ken Werho
 Nabil M. Raad
 Laura Rish
 Lisa Myers

Wishon, Ron

From: Collins, Keith
Sent: Friday, January 11, 2008 9:11 AM
To: Myers, Lisa; Summers, Brian; Wishon, Ron; Buchan, Ben
Cc: Hasty, Charles A. (Chuck); O'Brien, Neal; Franks, Jill L.
Subject: US 78/278/DL HOLLOWELL PARKWAY ;PI # 720570; VE STUDE IMPLEMENTATION

Good Morning to All,

I have completed my review of the VE Study implementation recommendations as requested from our meeting on Monday, January 07, 2008. Additional information requested for ALT # AL-8 shows a cost savings of \$ 413.47 by eliminating 115.53 SY's of sidewalk on the north side only at Glass Street/Law Street Connector, but adding an additional 104 SY's of sidewalk along the east side of Marietta Blvd. to tie into the new Glass Street/Law Street extension into Marietta Blvd. Upon review for ALT # AL-11, I have concluded that we can remove the 252 LF of 18" storm drain pipe between Structures D2-3 and D2-4 and divert the water from Structure D2-3 into Structure D3-5 with a 100 LF cross drain pipe as requested for a cost savings of \$ 7457.00 as shown on the VE Study Cost Worksheet. The Alt # AL-11 will be implemented. If you have need of additional information, please call me at (404) 656-5442.

Thanks,

Keith Collins, Design Engineer

Georgia Department of Transportation

Office of Urban Design

No. 2 Capitol Square, S. W.

Room 356

Atlanta, Ga. 30334-1002

Phone: (404) 656-5442

Fax: (404) 657-7921



**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE



FILE STPNH-0003-01(033), Fulton County
P.I. No. 720570
US 78/278 D.L. Hollowell Pkwy. from
Proctor Creek to East of CSX Railroad
James B. Buchan
FROM James B. Buchan, P.E., State Urban Design Engineer
TO Brian Summers, P.E., State Review Engineer
SUBJECT Value Engineering Study Report Response

OFFICE Urban Design
DATE November 13, 2007

This office has received and reviewed the recommendations of the Value Engineering Study Workshop Report dated September 27, 2007. Below are our responses to the recommendations:

AL-2) Shift the left-turn at STA. 122+00 further to the west in line with the metals fabricating plant driveway.

The intent of the U-turn was not for semi tractor trailer trucks. The median is needed to control the traffic movements at the Marietta Boulevard intersection. To shift the end of the median opening further to the west would result in reduced operations of the intersection.

For these reasons, we do not recommend implementing this design alternative.

AL-3) Eliminate both bike lanes along D.L. Hollowell Parkway.

This project is on the Atlanta Regional Commission Bike Transportation/Pedestrian Walkways Plan. The removal of the bike lane would require a TIP amendment.

In addition, during the PFPR it was determined that four lanes of traffic would need to remain open during stage construction. For this to happen, the proposed pavement width needs to remain as designed, including the bike lanes.

For these reasons, we do not recommend implementing this design alternative

AL-5) Eliminate the sidewalk on the north side of the Stiff Street access road.

This will be implemented, but the potential cost saving is approximately \$1,181 not \$27, 108. The majority of the VE team's potential cost savings comes from reducing the 12-foot shoulder width by 4' with the elimination of the sidewalk. The minimum shoulder width is 12-foot. Taking out the sidewalk does not allow us to reduce the shoulder width by the same amount. Also the right-of-way has already been acquired. The potential cost savings would be the cost for concrete.

- AL-7) Continue Glass Street/Law Street Connector further west to Marietta Boulevard to improve circulation.***

Glass Street/Law Street Connector will be extended as we described to the VE team in our presentation.

- AL-8) Eliminate the sidewalks on the Glass Street/Law Street Connector.***

This will be partially implemented. We recommend retaining the sidewalk along the south side of Glass Street/Law Street Connector and adding sidewalk along the east side of Marietta Boulevard. This would provide sidewalk connectivity between the neighborhood and D.L. Hollowell Parkway ensuring ADA requirements are met. The cost will increase with this recommendation.

- AL-10) Shorten the project limits on the east end of the alignment from STA. 131+00 to STA. 129+50***

We recommend this to be implemented, but the revised project limits will be 130+28 (+/-) which will coincide with the rights of way limits of acquisition. The VE Report had a savings for right of way, which does not exist. The right of way has already been acquired. The potential cost savings will be \$4,315 ending the project at Sta. 130+28 (+/-).

- AL-11) Modify the storm design to use a drain line on just one side of the street in lieu of both, where possible.***

The storm drains are needed on both sides of D.L. Hollowell to adequately drain the roadway surface during stage construction.

For this reason, we do not recommend implementing this design alternative.

- AL-12) Review the storm drain plan and profile for accuracy and constructability.***

This suggestion will be implemented.

- AL-13) Do not demolish the existing pavement on the south side of D.L. Hollowell Parkway just west and east of the CSX bridge. Use this existing pavement for Maddox Park parking.***

The location of the permanent CSX railroad bridge is not conducive to allow the circulation needed to convert the existing roadbed into parking. The proposed abutment will be located in the existing roadbed.

For this reason, we do not recommend implementing this design alternative.

- P-2) Raise the profile of the mainline by 1 ft. under the CSX detour bridge to reduce excavation quantity and bridge length, reducing the vertical clearance from 18 ft. to the required minimum of 17 ft.***

Raising the grade based on the limits in the VE report would affect the vertical curve over the roadway bridge. This would require a redesign of both the roadway bridge and the railroad bridge.

For this reason, we do not recommend implementing this design alternative.

CX-1) Build the temporary railroad detour bridge as permanent and have CSX participate in the funding.

CSX has a future layout of constructing a separate parallel track through this corridor. For this reason the desired railroad alignment is tangent. Also the coordination required with CSX would require a major project schedule change and there is no guarantee that CSX would participate in the funding.

For this reason, we do not recommend implementing this design alternative.

CX-2) Use a two-span permanent railroad bridge with a column in the roadway median in lieu of a three-span bridge.

The 84' of concrete superstructure in the current design is much cheaper than the cost of an additional 84' of fracture critical through steel plate girder bridge. The current design will save \$278,000 as opposed to the entire bridge being steel plate girders. In addition to that, the welds on this type of steel plate girder bridge have to be 100% ultra sound tested. The length of time for this to happen for a 2-span or 4-beam bridge is considerable more than the current design of 1-span or 2-beam bridge.

For these reasons, we do not recommend implementing this design alternative.

AB-1) Use a Con/Span arch type of structure in lieu of a conventional bridge over the abandoned railroad right-of-way.

Presently CSX owns the property of the railroad corridor. CSX has a future plan of constructing two separate parallel tracks through this corridor. The vertical clearance over two future CSX tracks would be compromised with the Con/span arch type structure. Also the VE study report is very vague and possibly incorrect regarding the "Advantages" on page 58 where it stated "Eliminates most MSE walls." This office disagrees with this finding, the MSE walls are needed even with this type of bridge.

For these reasons, we do not recommend implementing this design alternative.

AB-2) Use two bridge structures over the abandoned railroad right-of-way in lieu of a single wider bridge.

A single bridge provides a wider, more flexible future traffic corridor in this urban setting and does not preclude the U-turn movement. The addition of safety barrier that would be needed on both ends of both bridges would increase the cost of the two bridge proposal.

For these reasons, we do not recommend implementing this design alternative.

If there are any questions or comments concerning these recommendations, please contact Neal O'Brien or Jill Franks at (404) 656-5442.


JBB:JLF

cc: Todd Long, Director of Preconstruction